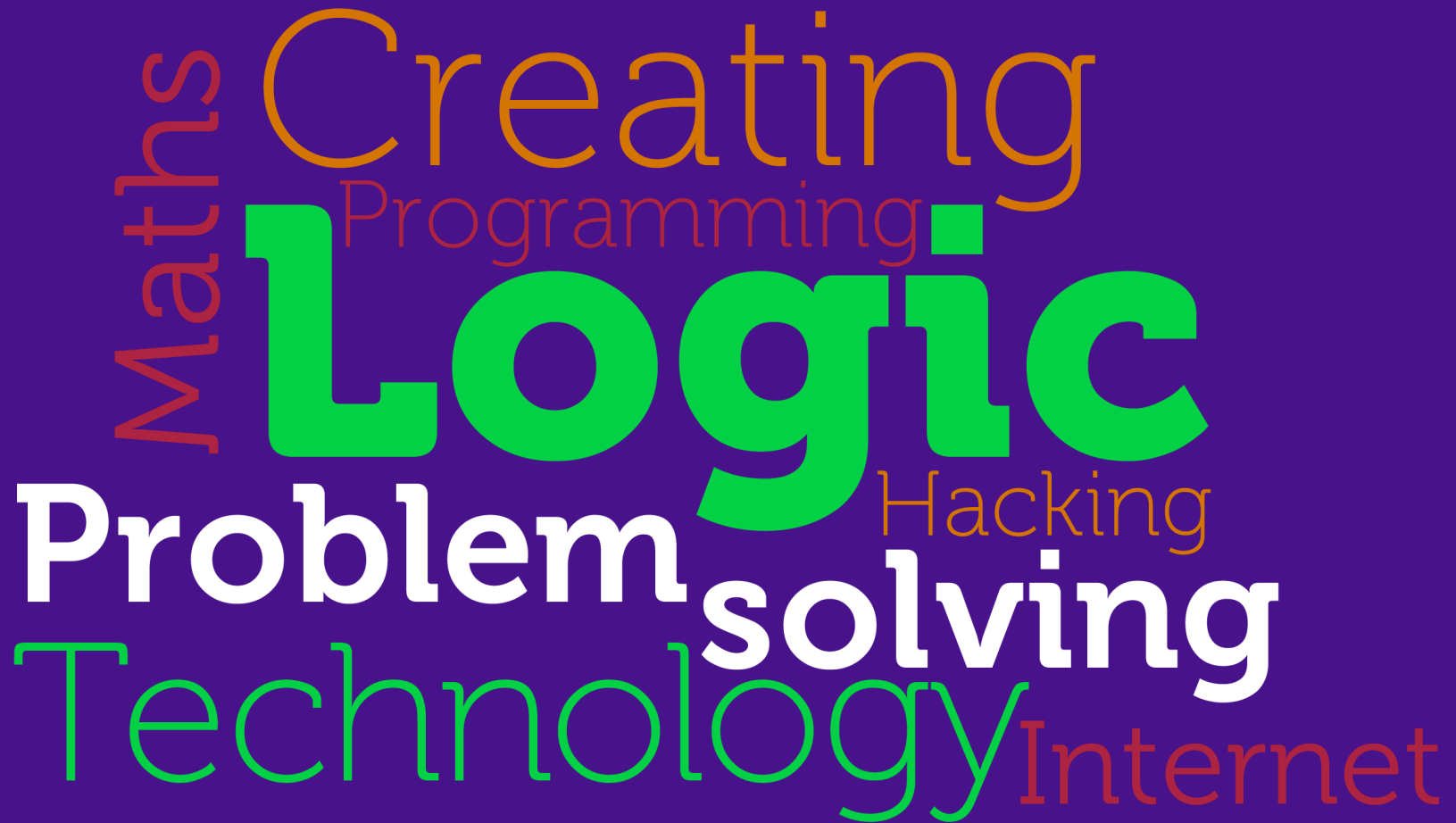


Options talks

GCSE

Computer Science

Do you like...?

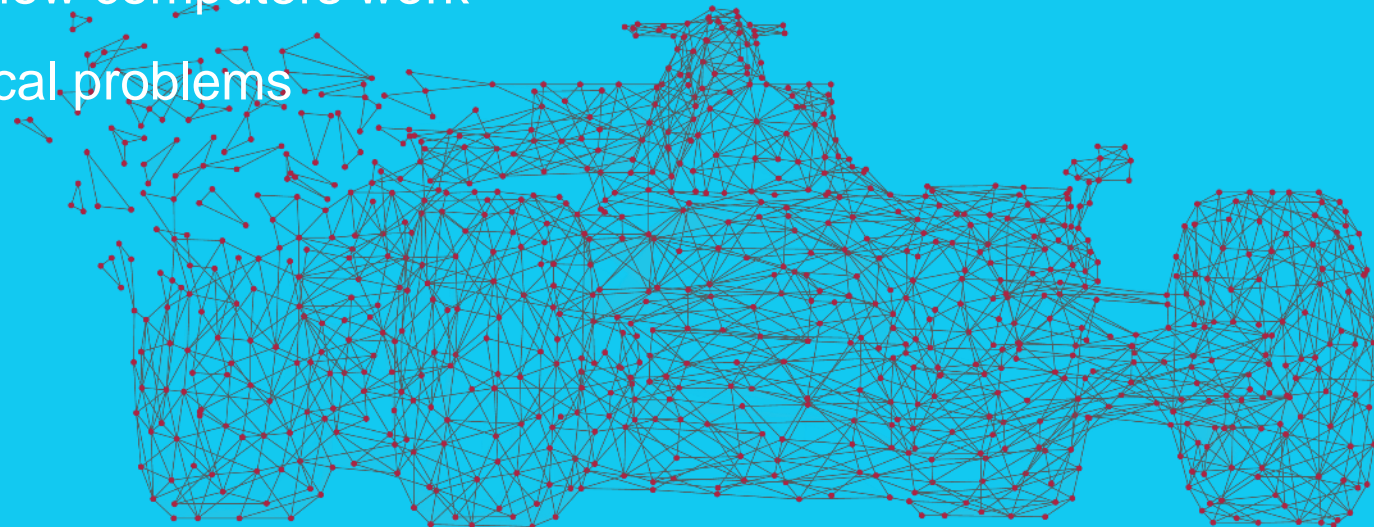


A word cloud featuring various terms related to computer science and technology. The words are arranged in a cluster, with 'Logic' being the largest and most prominent word in the center. Other words include 'Creating', 'Programming', 'Maths', 'Problem solving', 'Technology', 'Hacking', and 'Internet'. The colors of the words vary, including shades of orange, green, and white.

Maths
Creating
Programming
Logic
Problem solving
Hacking
Technology
Internet

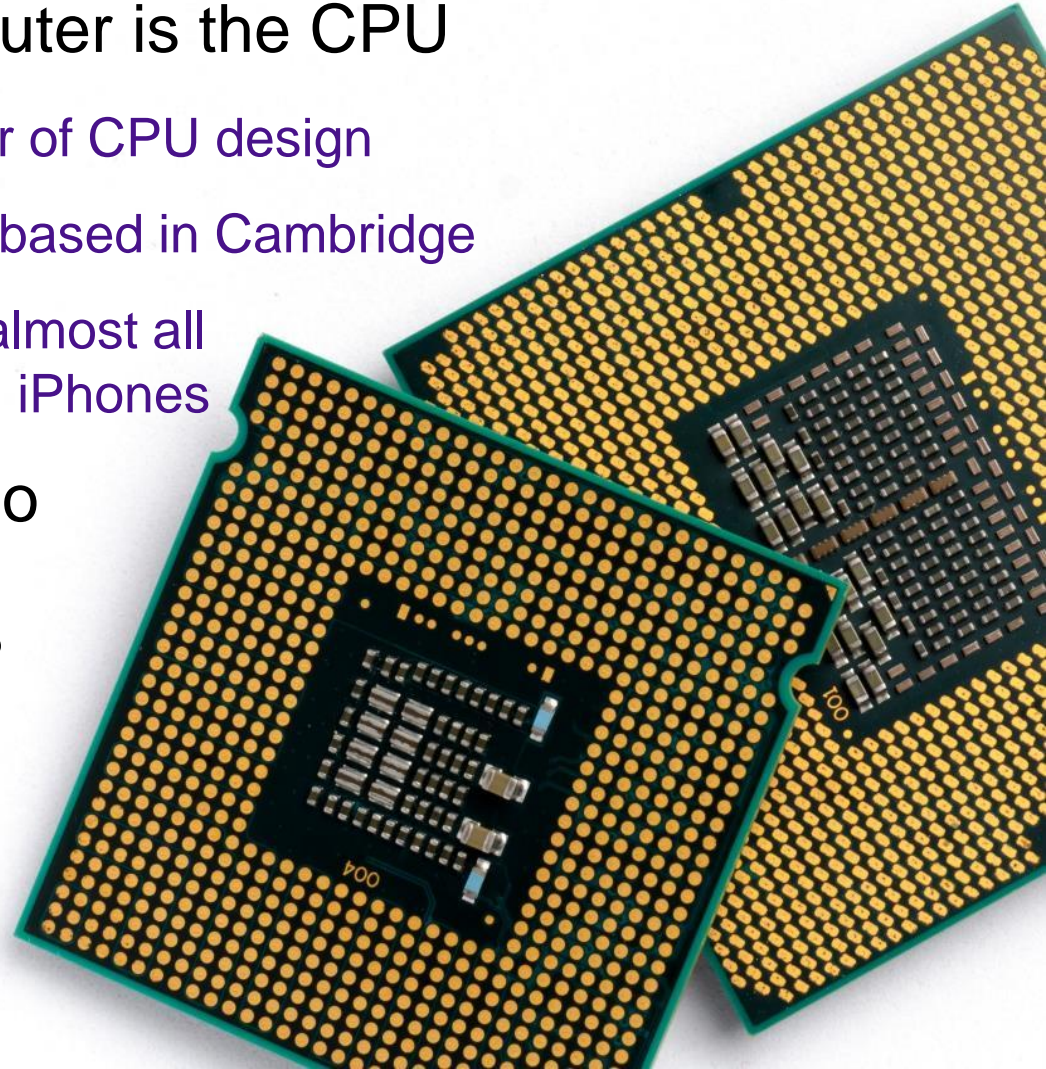
Why choose CS?

- Computers are changing every part of our lives at an ever increasing rate – why not drive the future?
- In this GCSE:
 - Experience programming and making new software
 - Find out how hackers attack computers
 - Discover how computers work
 - Solve logical problems



CPU design

- The brain of any computer is the CPU
 - The UK is a world leader of CPU design
 - Made by ARM, who are based in Cambridge
 - ARM chips are used in almost all mobile phones including iPhones
- Are you the person who will design the next generation of devices?



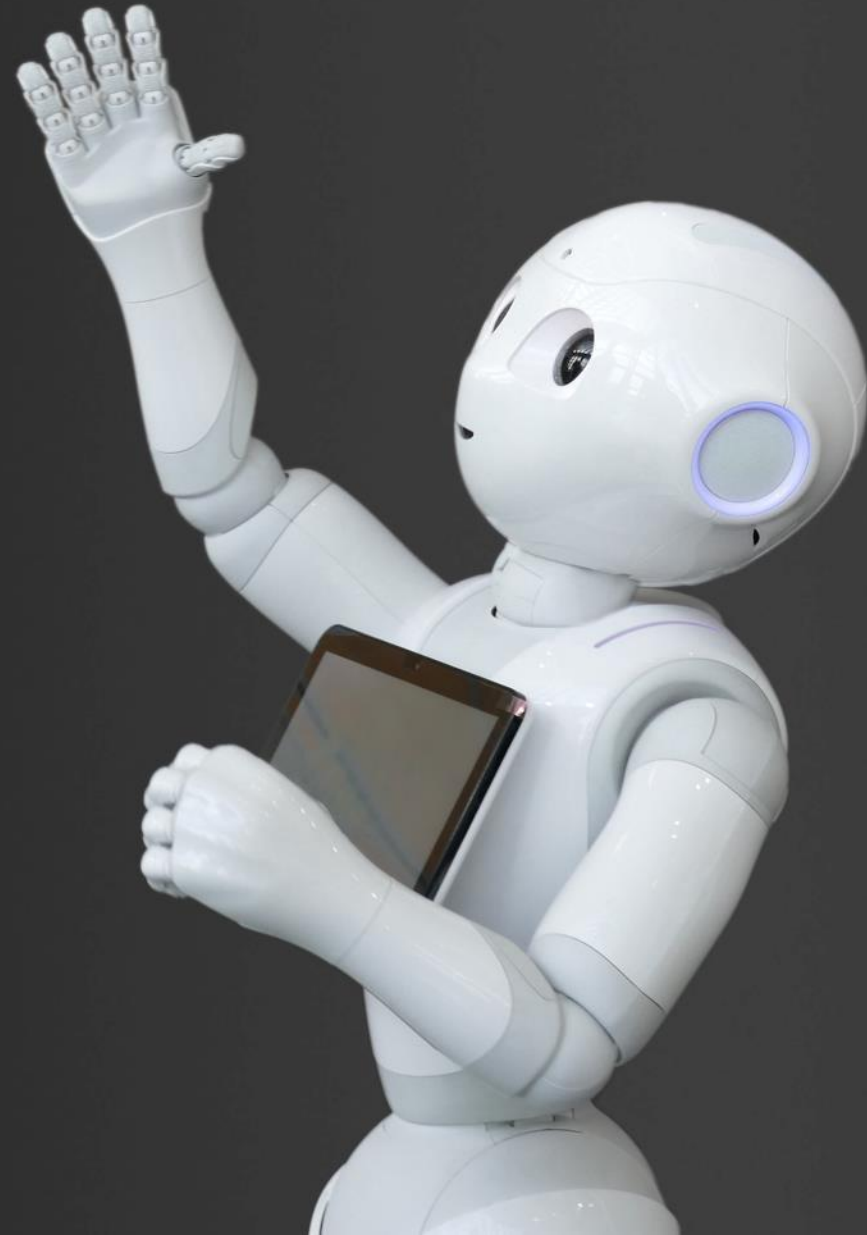
Drones

- Drones are already used for film making, search & rescue and surveying
 - In the future, deliveries to your house could be made by drone
 - They will need programmers to tell them where and when to go each day
- Would you like to be a part of this future?



Robotics

- We are finding more and more uses for robots
 - Robotic vacuums in the home
 - Car assembly
 - Clearing mines in a war zone
- To make a robot you need to have a good understanding of how computers work and how to program them



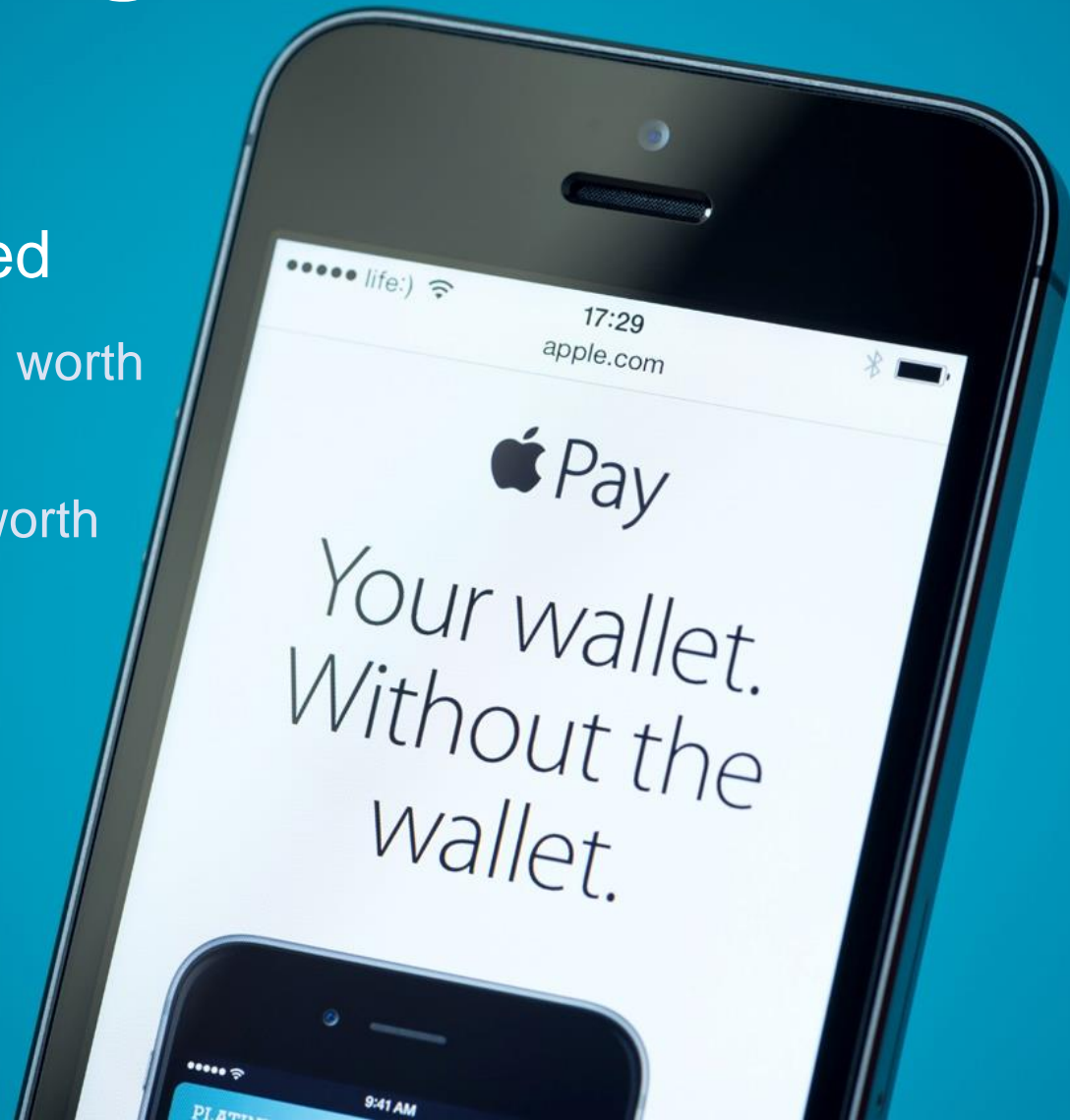
The World Wide Web

- Invented by British scientist, Tim Berners-Lee in 1989
 - More than four billion people now use it
 - Over 45 billion web pages have been written
- Every British business needs people with an understanding of how computing can help them



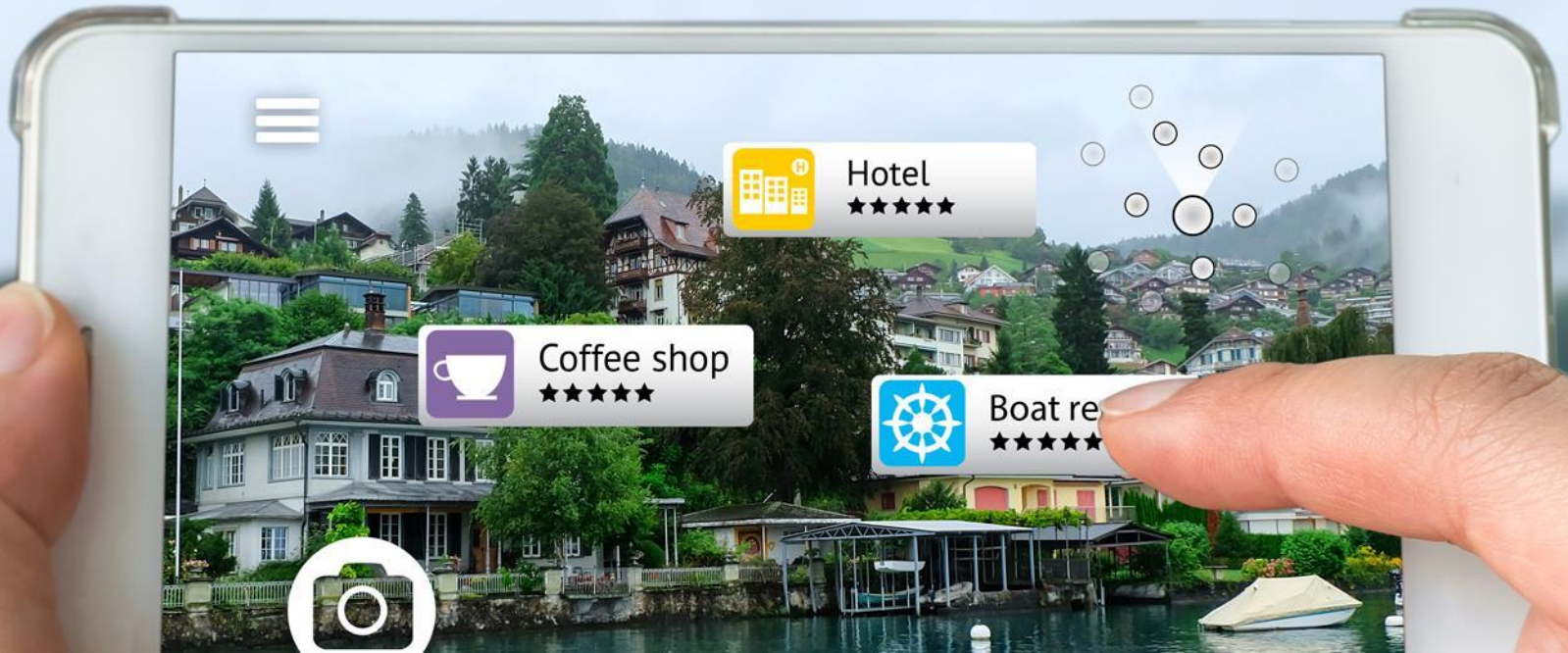
Game-changing E-commerce

- Shopping has been transformed since the web was invented
 - Online shopping was worth £1 trillion in 2014
 - It is predicted to be worth £3.7 trillion by 2021
- Want to know how it works?



Augmented reality

- By adding information to the world we can:
 - add reviews on shops and cafés as we see them
 - utilise a heads-up display when driving
 - or play Pokémon Go



Entrepreneurs & start-ups

- It took just three people to create Snapchat
 - Bobby Murphy was the programmer who coded the app
- Within four years the software was sending six billion videos per day
 - Most entrepreneurs can't imagine having made it without a knowledge of IT and Computer Science



Big companies in the UK

- Major international companies are present in the UK and looking for bright new talent
 - Google
 - Microsoft
 - Apple
 - Samsung
 - Facebook



A strong games industry

- The UK is well known for its games development
- The following were all made in the UK:
 - Grand Theft Auto (Edinburgh)
 - Elite Dangerous (Cambridge)
 - Candy Crush (London)
 - Batman: Arkham (London)
 - Sonic Forces (Leamington Spa)
 - Burnout Paradise (Guildford)



OCR GCSE Computer Science Course Content

1.1 Systems architecture

1.2 memory and storage

1.3 Computer networks,
connections and protocols

1.4 Network security

1.5 Systems software

1.6 Ethical, legal, cultural and
environmental impacts of digital
technology

2.1 Algorithms

2.2 Programming
fundamentals

2.3 producing robust programs

2.4 Boolean logic

2.5 Programming languages
and IDE

Practical Programming

**You will be given a programming task to complete,
but the marks won't count which takes the pressure off you
as you code**

OCR GCSE Computer Science Assessment

**J277/01: Computer
systems**

Written paper:

1 hour and 30 minutes

50% of total GCSE 80
marks

**J277/02: Computational
thinking, algorithms and
Programming**

Written paper:

1 hour and 30 minutes

50% of total GCSE 80
marks

Will **you** ^{the next} **make BIG** app?



Big careers in...

Systems engineer
Design **Robotics**
Future careers electronics
Games **Web** Cyber-Security
Data **Entrepreneur** App
analysis UX/UI Programming
Consultant

Are you in?

**Speak to any of your Computing
Teachers:**

Mrs Bemowski

Mr Bemowski

Mr Darbyshire

Mr Choi

Email: dbemowski@poyntonhigh.org.uk